

Welding Emphasis

Manufacturing Technologies Degree

Associate of Applied Science

The associate of applied science manufacturing technologies degree with a welding emphasis gives the student the training necessary to earn the American Welding Society structural steel certifications, which are required for employment in most areas of the construction and manufacturing fields involving welding, along with the general education requirements and employability skills that are sought after by all employers in the construction and manufacturing trades.

Degree Outcomes

Students completing the degree will:

- Fulfill the requirements of the Associate of Applied Science.
- Demonstrate competency in their specified emphasis.

Emphasis Outcomes

- Be proficient in four major welding processes and prepared for industry-standard certification.
- Understand the basic concepts of technical drawings and apply print reading techniques required in the welding industry.
- Understand and consistently demonstrate safe and proper use of welding equipment, power tools, and accessories in the performance of welding and joinery.

General Education Requirements

Diversity	(3 credits)
English/Communications	6 credits
Human Relations	3 credits
Recommended: CE 201	
Quantitative Reasoning	3 credits
Recommended: MATH 106, 108 or higher	
Science	3 credits
Social Science/Humanities	3 credits
Recommended: AAD 201	
U.S. and Nevada Constitutions	3 credits
Total General Education Requirements	21 Credits

Core Requirements

AIT 110	General Industrial Safety	1
DFT 110	Print Reading for Industry	3
MPT 140	Quality Control	3
Total Core Requirements		7 Credits

Emphasis Requirements

IS 101	Introduction to Information Systems	3
WELD 211	Welding I	3
WELD 212	Welding I Practice	2
WELD 221	Welding II	3
WELD 222	Welding II Practice	2

WELD 231	Welding III	3
WELD 232	Welding III Practice	2
WELD 241	Welding IV	3
WELD 242	Welding IV Practice	2

Total Emphasis Requirements	23 Credits
------------------------------------	-------------------

Elective Requirements

Choose nine credits from the following:

ENRG 110	Basic Electricity	3
MT 150	Material Science	3
MTT 101	Introduction to Machine Shop	3
MTT 105	Machine Shop I	3
WELD 101	Basic Metals	3
WELD 250	Welding Certification Preparation	1-9
WELD 290	Internship in Welding	1-8

Total Elective Requirements	9 Credits
------------------------------------	------------------

Total Degree Requirements	60 Credits
----------------------------------	-------------------

Suggested Course Sequence

First Year	Course #	Title	Credits
1st Semester			
Core	AIT 110	General Industrial Safety	1
Core	DFT 110	Print Reading for Industry	3
English	ENG 101	Composition I	3
Quantitative Reasoning	MATH 108	Math for Technicians	3
Emphasis	WELD 211	Welding I	3
Emphasis	WELD 212	Welding Practice I	2
Total			15
2nd Semester			
Elective		Choose from list	3
Communications	ENG 107	Technical Communications I	3
Core	MPT 140	Quality Control	3
Science	PHYS 100	Introductory Physics	3
Emphasis	WELD 221	Welding II	3
Emphasis	WELD 222	Welding II Practice	2
Total			17
Second Year	Course #	Title	Credits
3rd Semester			
Humanities/ Diversity	AAD 201	History of the Built Environment	3
U.S. and Nevada	Elective		3
Constitutions			
Emphasis	IS 101	Introduction to Information Systems	3
Emphasis	WELD 231	Welding III	3
Emphasis	WELD 232	Welding III Practice	2
Total			14
4th Semester			
Elective		Choose from list	6
Human Relations	CE 201	Workplace Readiness	3
Emphasis	WELD 241	Welding IV	3
Emphasis	WELD 242	Welding IV Practice	2
Total			14
Degree Total			60